

WEST Search History

DATE: Monday, December 01, 2003

| <u>Set Name</u> side by side | <u>Query</u> | <u>Hit Count</u> | <u>Set Name</u> result set |
|---------------------------------|------------------|------------------|-------------------------------|
| <i>DB=USPT; PLUR=NO; OP=OR</i> | | | |
| L3 | L2 and software | 49 | L3 |
| L2 | L1 and download | 65 | L2 |
| L1 | subscription.ab. | 373 | L1 |

END OF SEARCH HISTORY

WEST**Search Results - Record(s) 1 through 49 of 49 returned.**

1. Document ID: US 6654746 B1

L3: Entry 1 of 49

File: USPT

Nov 25, 2003

US-PAT-NO: 6654746

DOCUMENT-IDENTIFIER: US 6654746 B1

TITLE: Methods and apparatuses for single-connection file synchronization workgroup file update

DATE-ISSUED: November 25, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------|----------------|-------|----------|---------|
| Wong; Danny | Marina Del Rey | CA | | |
| Stutzmann; Leo | Whitby | | | CA |
| Dickinson; Peter | Huntington | NY | | |

US-CL-CURRENT: 707/10; 707/201, 707/203, 709/203, 709/219

ABSTRACT:

A server computer updates client computers' copies of subscription files stored on a network. The server computer retrieves a database record from a subscription database. The database record includes at least client computer and subscription file information. The server computer checks the subscription file stored on the network for any changes which may have occurred to the file since the previous checking of the subscription file preferably by comparing the last save time stamp to a time stamp on the subscription file stored on the network. If changes have occurred, the server computer creates an update file for the client computer and transmits the update file to the client computer, preferably by electronic mail. Each database record may further contain a check interval indicating the periodicity of the checking of the subscription file for changes. The database record may further contain a time last checked field which is updated each time the subscription file is checked for changes. The subscription file is checked for changes only when the current time is equal to or greater than the time last checked plus the check interval. The subscription database is built by the server computer. The server computer receives subscription information from each client computer which includes at least the client computer and subscription file information, and this information is stored. The subscription database is stored either on the server computer's hard disk or on the network.

9 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 7

2. Document ID: US 6647411 B2

L3: Entry 2 of 49

File: USPT

Nov 11, 2003

US-PAT-NO: 6647411
DOCUMENT-IDENTIFIER: US 6647411 B2

TITLE: Secure cached subscription service

DATE-ISSUED: November 11, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|----------|-------|----------|---------|
| Towell; Timothy N. | Sherwood | OR | | |
| Kisor; Gregory | Portland | OR | | |

US-CL-CURRENT: 709/213; 705/52, 709/203, 709/219, 709/229, 725/142, 725/2, 725/46

ABSTRACT:

A system and method for a secure cached subscription system is described. In one embodiment, the system comprises a content provider and a caching device connected to the content provider. The content provider speculatively downloads information into the caching device based upon a user's data. A processing device is connected via a high-bandwidth connection to the caching device for processing the information.

29 Claims, 11 Drawing figures

Exemplary Claim Number: 16

Number of Drawing Sheets: 10

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KMC](#) | [Drawn Desc](#) | [Image](#)

3. Document ID: US 6633910 B1

L3: Entry 3 of 49

File: USPT

Oct 14, 2003

US-PAT-NO: 6633910

DOCUMENT-IDENTIFIER: US 6633910 B1

TITLE: Method and apparatus for enabling real time monitoring and notification of data updates for WEB-based data synchronization services

DATE-ISSUED: October 14, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------|---------------|-------|----------|---------|
| Rajan; Steeranga P. | Santa Clara | CA | | |
| Wu; Jonathan | Mountain View | CA | | |

US-CL-CURRENT: 709/224; 709/221, 709/226

ABSTRACT:

An Internet subscription system for alerting subscribers to changes in data maintained at Internet sites has an input interface for a subscriber to specify a data condition to be monitored and a condition for notification and a gatherer for gathering data changes from one or more Internet sites. A guard compares data changes with the condition for notification, and a notification alert system notifies the subscriber of a change that meets the condition for notification. The system is particularly suited to notification requirements regarding metadata changes over multiple sources. Users can configure the system to many different frequencies and many different data and notification conditions. Alerts may be made to many different devices in different ways as well, and may or may not include specific data.

11 Claims, 4 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

[Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments]

[KIMC | Draw Desc | Image]

4. Document ID: US 6633851 B1

L3: Entry 4 of 49

File: USPT

Oct 14, 2003

US-PAT-NO: 6633851

DOCUMENT-IDENTIFIER: US 6633851 B1

TITLE: Systems and methods for generating custom reports based on point-of-sale data

DATE-ISSUED: October 14, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|---------------|-------|----------|---------|
| Engler; Jeffery T. | Rancho Mirage | CA | | |
| Engler; Lee J. | Minnetonka | MN | | |
| Newman; Leonard M. | Plymouth | MN | | |

US-CL-CURRENT: 705/21

ABSTRACT:

A method of generating custom reports based on point-of-sale data transferred between multiple remote computing devices and a central computing device includes generating point-of-sale data at multiple remote locations, transferring the point-of-sale data to a central computing device from multiple computing devices at the respective multiple remote locations, defining a custom report format, the custom report format specifying at least two of the multiple remote locations and specifying a date range, the date range and the at least two multiple remote locations being freely selectable by a user, generating a custom report using the custom report format, the custom report being based on point-of-sale data related to the specified remote locations and the specified date range, and communicating the custom report to a human being. A computer program embodied on a computer-readable medium for generating custom reports is also disclosed, as are subscription services, computer systems, graphical user interfaces and other features.

19 Claims, 31 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 29

[Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments]

[KIMC | Draw Desc | Image]

5. Document ID: US 6631496 B1

L3: Entry 5 of 49

File: USPT

Oct 7, 2003

US-PAT-NO: 6631496

DOCUMENT-IDENTIFIER: US 6631496 B1

TITLE: System for personalizing, organizing and managing web information

DATE-ISSUED: October 7, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------|----------|-------|----------|---------|
| Li; Wen-Syan | Fremont | CA | | |
| Vu; Quoc | San Jose | CA | | |

US-CL-CURRENT: 715/501.1; 707/10, 707/102, 715/513

ABSTRACT:

The present invention provides a hypermedia database for managing bookmarks, which allows a user to organize hypertext documents for querying, navigating, sharing and viewing. In addition, the hypermedia database also provides access control to the information in the database. The hypermedia database of the present invention parses meta-data from bookmarked documents and indexes and classifies the documents. The present invention supports advanced query and navigation of a collection of bookmarks, especially providing various personalized bookmark services. In one embodiment, the present invention utilizes a proxy server to observe a user's access patterns to provide useful personalized services, such as automated URL bookmarking, document refresh, and bookmark expiration. In addition, a user may also specify various preference in bookmark management, e.g., ranking schemes (i.e. by referral, access frequency, or popularity) and navigation tree fan-out. A subscription service which retrieves new or updated documents of user-specified interests is also provided.

44 Claims, 27 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 20

| | | | | | | | | | | | | |
|----------------------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------------|----------------------|---------------------------|---------------------------|-----------------------------|----------------------|----------------------------|-----------------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KMIC | Drawn Desc | Image |
|----------------------|-----------------------|--------------------------|-----------------------|------------------------|--------------------------------|----------------------|---------------------------|---------------------------|-----------------------------|----------------------|----------------------------|-----------------------|

 6. Document ID: US 6578002 B1

L3: Entry 6 of 49

File: USPT

Jun 10, 2003

US-PAT-NO: 6578002

DOCUMENT-IDENTIFIER: US 6578002 B1

TITLE: Medical diagnostic system service platform

DATE-ISSUED: June 10, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---|-----------|-------|----------|---------|
| Derzay; Gregory John | Pewaukee | WI | 53072 | |
| Heinen; John Michael | Wauwatosa | WI | 53213 | |
| Hutabarat; Cyrillus Tamsil Steven Kunta | Waukesha | WI | 53186 | |
| Kucek; Leo Michael | Waukesha | WI | 53189 | |
| Suchecki; Michael Thomas | Waukesha | WI | 53188 | |
| Swierczek; David Alan | Sussex | WI | 53089 | |

US-CL-CURRENT: 705/2

ABSTRACT:

A uniform service platform is provided for medical diagnostic systems. The platform includes modality interface modules which may be adapted for various system modalities, including magnetic resonance imaging modalities, computed tomography modalities, x-ray modalities, and so forth. A server coordinates the exchange of operational parameter data between the systems and external circuitry, such as a

remote service facility. A browser displays user-viewable pages for viewing, requesting and receiving service information. A communications module permits the exchange of service data between a system on which the platform is installed and remote circuitry. The platform may further include a subscription module for verifying subscription and access rights, such as for security purposes. Certain portions of the platform, including the user-viewable pages and modality interface components may be specifically tailored or adapted to the modality of a system on which the platform is installed.

34 Claims, 18 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 17

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KOMC](#) | [Draw Desc](#) | [Image](#)

7. Document ID: US 6574657 B1

L3: Entry 7 of 49

File: USPT

Jun 3, 2003

US-PAT-NO: 6574657

DOCUMENT-IDENTIFIER: US 6574657 B1

TITLE: Methods and apparatuses for file synchronization and updating using a signature list

DATE-ISSUED: June 3, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------|------------|-------|----------|---------|
| Dickinson; Peter | Huntington | NY | | |

US-CL-CURRENT: 709/203; 707/1, 707/203, 709/217, 709/229

ABSTRACT:

A server computer generates an update file for transmission to a client computer that permits the client computer to generate a copy of a current version of a subscription file from a copy of an earlier version of the subscription file. For each segment of the current version of the subscription file, the server computer searches an earlier version of a signature list for an old segment signature which matches a new segment signature corresponding to the segment. When a match is detected, the server computer writes a command in the update file for the client computer to copy an old segment of the client computer's copy of the earlier version of the subscription file into the client computer's copy of the current version of the subscription file, where the old segment corresponds to the segment for which a match was detected. When no match is detected, the server computer writes a command into the update file for the client computer to insert a new segment of the current version of the subscription file into the client computer's copy of the current version of the subscription file, where the new segment of the current version of the subscription file is written into the update file. The new segment of the current version of the subscription file may be compressed, encrypted, or both, by the server computer. When the update file is completed, the server computer transmits the update file to the client computer as an executable attachment via electronic mail. The update file is only generated when the server computer determines the subscription file has changed. The server computer periodically monitors the subscription file to determine if it has been altered before generating an update file.

24 Claims, 12 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 12

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)[KMC](#) | [Draw Desc](#) | [Image](#) 8. Document ID: US 6564324 B2

L3: Entry 8 of 49

File: USPT

May 13, 2003

US-PAT-NO: 6564324

DOCUMENT-IDENTIFIER: US 6564324 B2

TITLE: Reprogrammable subscriber terminal

DATE-ISSUED: May 13, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|---------------|-------|----------|---------|
| Bacon; Kinney C. | Lawrenceville | GA | | |
| Haman; R. Thomas | Duluth | GA | | |
| Lett; David B. | Duluth | GA | | |
| Banker; Robert O. | Cumming | GA | | |
| Harney; Michael P. | Atlanta | GA | | |

US-CL-CURRENT: 713/189, 380/202, 380/204, 380/239, 713/2

ABSTRACT:

A reprogrammable subscriber terminal of a subscription television service which can have the control program code of its control processor modified by downloading new program code from the headend. The control processor stores a boot program in an internal read only memory. Upon start up and resets, the boot program determines whether the control program should be changed from a command sent from the headend. The command, termed a parameters transactions, includes the number of expected download program code transactions required to complete the control code modification, the memory space areas where the code is to be loaded, and the channel over which the download program code transactions are to be transmitted. The channel is tuned and when the boot program receives all the download program code transactions accurately and stores them, the boot program will cause the control program to be restarted at a selected address of the new or modified control program code which has been downloaded. The boot program may download code to different configurations of subscriber terminals including those with Flash EPROM or extended memories from plug-in expansion modules.

20 Claims, 23 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 14

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)[KMC](#) | [Draw Desc](#) | [Image](#) 9. Document ID: US 6564055 B1

L3: Entry 9 of 49

File: USPT

May 13, 2003

US-PAT-NO: 6564055

DOCUMENT-IDENTIFIER: US 6564055 B1

TITLE: Intelligent roaming database (IRDB) updating

DATE-ISSUED: May 13, 2003

INVENTOR-INFORMATION:

| | | | | |
|---------------------------|-------------------|-------------|----------|---------|
| NAME Hronek; Daniel J. | CITY Annapolis | STATE MD | ZIP CODE | COUNTRY |
|---------------------------|-------------------|-------------|----------|---------|

US-CL-CURRENT: 455/433; 455/418, 455/438

ABSTRACT:

A unique method and apparatus to dynamically maintain different Intelligent Roaming Database (IRDB) or Preferred Roaming Lists (PRL) in a mobile handset. In accordance with the principles of the present invention, the current location of the mobile device or other individualized aspect of the mobile device (e.g., class of service, time of day, etc.) is used to determine and select one of a plurality of different wireless carrier code lists (i.e., IRDBs or PRLs) for download to a particular mobile device. Individual IRDBs may be developed for each mobile device, providing a customized wireless carrier code list based on a type of subscription plan, etc. or other network or subscriber based feature. The described IRDB is of the same size as the current system IRDB (i.e., 82 carriers maximum, 166 bytes maximum), although a list of wireless carriers of any length is within the scope of the present invention. A location based IRDB is downloaded to a particular mobile device when the mobile device enters the location corresponding to that particular location based IRDB. When one of the many location based IRDBs are updated, only those mobiles in the relevant geographical region need have their IRDB updated. When the mobile device roams to a new geographical region and re-registers, a triggering event is formed. The present invention brings the trigger for an IRDB update down to the level of the particular subscriber, e.g., based on the subscribers location, the subscribers plan, etc. The triggering event may be detected by any suitable function of the wireless network, e.g., by utilizing a registration notification (REGNOT) message from the mobile device. The triggering event will cause the download to that triggering mobile device only from a suitable over the air function (OTAF) application including a suitable location based IRDB manager of the location based IRDB for that new region, whether the location based IRDB for that reason has not been changed in a while or has been recently updated. The described location based IRDB manager is implemented in Over The Air Programming (OTAP) software. The location based IRDB manager uses conventional registration information (e.g., the current location information contained in a REGNOT message) in conjunction with data contained in a log file accessible to the location based IRDB manager to determine if a new and/or updated IRDB should be downloaded to the mobile device. Individualized IRDB updating reduces network loading. Moreover, using a location and subscriber based IRDB, the available IRDBs can be focused on a subscriber differentiating feature, e.g., a class of service (COS) basis and/or on the current location of the mobile device, to provide further customization and direction of the mobile device to carriers desired by the servicing wireless company.

22 Claims, 11 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 11

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KIMC](#) | [Drawn Desc](#) | [Image](#)

10. Document ID: US 6546488 B2

L3: Entry 10 of 49

File: USPT

Apr 8, 2003

US-PAT-NO: 6546488

DOCUMENT-IDENTIFIER: US 6546488 B2

TITLE: Broadcast delivery of information to a personal computer for local storage and access

DATE-ISSUED: April 8, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|--------------------|-------|----------|---------|
| Dillon; Douglas M. | Gaithersburg | MD | | |
| Robins; Glenn D. | Montgomery Village | MD | | |

US-CL-CURRENT: 713/181; 340/7.48, 709/204

ABSTRACT:

A method and apparatus for broadcasting newsgroup information to a plurality of users uses a news server, which is in communication with the Internet, a newscast transmitter, a satellite gateway, and a subscriber station. The news server gathers newsgroup information from Internet newsgroups, and the newscast transmitter, in conjunction with the satellite gateway and a satellite, distributes all of the information to a plurality of subscriber stations. The subscriber stations preferably include personal computers equipped to receive broadcast newsgroup information. The subscriber stations each include a personal news server, storage media and a newsreader. The personal news server filters newsgroup information received based on subscription information stored only local to the receiver. The filtered newsgroup information is stored on the storage media for use at a later time when a user desires to read the newsgroup information.

14 Claims, 10 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 9

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KIMC](#) | [Drawn Desc](#) | [Image](#)

11. Document ID: US 6516340 B2

L3: Entry 11 of 49

File: USPT

Feb 4, 2003

US-PAT-NO: 6516340

DOCUMENT-IDENTIFIER: US 6516340 B2

TITLE: Method and apparatus for creating and executing internet based lectures using public domain web page

DATE-ISSUED: February 4, 2003

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------|--------|-------|----------|---------|
| Boys; Mark A. | Aromas | CA | | |

US-CL-CURRENT: 709/204; 709/203, 709/217

ABSTRACT:

An Internet-enabled subscription teaching service system has an Internet-connected lecture server executing a software suite, one or more teacher-author stations coupled to the Internet-connected lecture server, having input and display apparatus, and including lecture-authoring software, and one or more Internet-capable lecture client stations having lecture-participation software. Teacher-authors use the teacher-author stations to prepare lectures through the lecture-authoring software, the lecture server stores prepared lectures and provides lectures on a pre-determined schedule to lecture clients at the lecture client stations, and the lecture clients follow the provided lectures at the lecture client stations through the lecture-participation software. Some lectures are fully automatic, and some are directed by the teacher-authors in real time. In the real time case recipients are directed to WEB pages in unison, and annotation and commentary is provided by the teacher-author as pages are visited.

22 Claims, 4 Drawing figures

Exemplary Claim Number: 1
Number of Drawing Sheets: 4

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KIMC](#) | [Draw Desc](#) | [Image](#)

12. Document ID: US 6484143 B1

L3: Entry 12 of 49

File: USPT

Nov 19, 2002

US-PAT-NO: 6484143

DOCUMENT-IDENTIFIER: US 6484143 B1

TITLE: User device and system for traffic management and content distribution over a world wide area network

DATE-ISSUED: November 19, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------------|---------------|-------|----------|---------|
| Swildens; Eric Sven-Johan | Mountain View | CA | | |
| Day; Richard David | Mountain View | CA | | |
| Gupta; Ajit K. | Fremont | CA | | |

US-CL-CURRENT: 705/1; 709/223, 709/224, 709/235

ABSTRACT:

A user interface device and system for providing a shared GTM and CDN (collectively Universal Distribution Network) for a service fee, where the customer or user does not need to purchase significant hardware and/or software features. The present interface device and system allows a customer to scale up its Web site, without a need for expensive and difficult to use hardware and/or software. In a preferred embodiment, the customer merely pays for a service fee, which can be fixed, variable, lump some, or based upon a subscription model using the present system. The present device and system are preferably implemented on a system including a novel combination of global traffic management and content distribution.

22 Claims, 18 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 16

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KIMC](#) | [Draw Desc](#) | [Image](#)

13. Document ID: US 6477707 B1

L3: Entry 13 of 49

File: USPT

Nov 5, 2002

US-PAT-NO: 6477707

DOCUMENT-IDENTIFIER: US 6477707 B1

TITLE: Method and system for broadcast transmission of media objects

DATE-ISSUED: November 5, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-----------------------|-----------|-------|----------|---------|
| King; Martin Cranston | Zug | | | CH |
| Troelsen; Erik | Viganello | | | CH |
| Gulfi; Enrico | Caslano | | | CH |

US-CL-CURRENT: 725/97, 725/103, 725/114, 725/115, 725/117, 725/143, 725/144,
725/145, 725/147, 725/91

ABSTRACT:

A distributed broadcast system for receiving, processing, scheduling and broadcasting a wide variety of media objects is disclosed. The system comprises: a media object tracking system, a channel editing segment, a broadcast facility, and a plurality of end-user PCs. The media object tracking system receives media objects from a plurality of distinct sources and tracks their distribution, modification, and use. Associated with the media-object tracking system are a plurality of editing stations, where received media objects may be processed to create broadcast-ready material. The channel editing segment preferably comprises a plurality of channel editing centers (CECs) and one or more channel management centers (CMCs) which aggregate broadcast-ready media objects and schedule them for broadcast. Each scheduled media object is encoded in accordance with subscription information associated with the service to which the media object belongs. The encoded media object is multiplexed onto a time-division-multiplex channel of a broadcast bit stream. The broadcast facility transmits the encoded bit stream via a broadcast channel. Appropriately equipped end-user PCs receive the transmission and provide the end-user with access to those portions of the broadcast which the end-user is authorized to receive.

39 Claims, 10 Drawing figures

Exemplary Claim Number: 15

Number of Drawing Sheets: 8

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KMC](#) | [Draw Desc](#) | [Image](#)

14. Document ID: US 6453161 B1

L3: Entry 14 of 49

File: USPT

Sep 17, 2002

US-PAT-NO: 6453161

DOCUMENT-IDENTIFIER: US 6453161 B1

TITLE: Agile service interaction manager for intelligent network services

DATE-ISSUED: September 17, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|----------|-------|----------|---------|
| Touati; Samy | Montreal | | | CA |
| Poulin; Andre | Laval | | | CA |
| Sugirtharaj; David | Laval | | | CA |

US-CL-CURRENT: 455/433, 379/201.01, 379/207.02, 379/219, 455/412.1, 455/414.2,
455/422.1, 455/507, 455/560

ABSTRACT:

A method and system for responding to a trigger condition detected during the handling of a call connection in an intelligent network (IN). Upon receipt of an IN trigger, a service interaction manager in a service control point queries a home location register for a subscriber involved in the call connection requesting subscriber subscription information. The service interaction manager also queries a

service library associated with the service control point to determine which of an implicated set of services are currently available in the service library and what the properties of those services are. Depending upon which services are available, which services are in the subscriber's subscription list, and the service priority information received from the home location register and the service library, including the properties data from the service library, the service interaction manager reduces the list of implicated services to an applicable set of services and generates a customized execution sequence for the applicable services. Thereafter, at least one of the applicable services is executed in accordance with the customized execution sequence.

27 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KWD](#) | [Draw Desc](#) | [Image](#)

15. Document ID: US 6442598 B1

L3: Entry 15 of 49

File: USPT

Aug 27, 2002

US-PAT-NO: 6442598

DOCUMENT-IDENTIFIER: US 6442598 B1

**** See image for Certificate of Correction ****

TITLE: System and method for delivering web content over a broadcast medium

DATE-ISSUED: August 27, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-----------------------|----------|-------|----------|---------|
| Wright; Anne | Bellevue | WA | | |
| Sargent; James Randal | Bellevue | WA | | |
| Witty; Carl R. | Bellevue | WA | | |
| Moran; Brian K. | Issaquah | WA | | |
| Feinleib; David | Redmond | WA | | |

US-CL-CURRENT: 709/217; 709/216, 709/239

ABSTRACT:

A webcast system delivers Web content from a webcast center over a broadcast medium to many clients. The webcast center has a server unit that gathers Web pages from sites on the Internet and stores the pages in a cache. The server unit bundles the pages from the cache into package files and stores the package files in a package store. The webcast center also has a broadcast unit that retrieves the package files from the package store and delivers the package files to the clients over the broadcast medium. Each client is equipped with a receiver to receive the broadcast package files. The client maintains a subscription database to store a directory of the Web content gathered by the webcast center. A subscriber user interface enables a user to select preferred Web content from the directory of the subscription database. The client creates a filter based on the user's preferences which is used to direct the receiver to collect only the package files carrying the preferred Web content, while rejecting packages carrying unwanted Web content.

34 Claims, 6 Drawing figures

Exemplary Claim Number: 32

Number of Drawing Sheets: 5

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KWD](#) | [Draw Desc](#) | [Image](#)

16. Document ID: US 6434572 B1

L3: Entry 16 of 49

File: USPT

Aug 13, 2002

US-PAT-NO: 6434572

DOCUMENT-IDENTIFIER: US 6434572 B1

TITLE: Medical diagnostic system management method and apparatus

DATE-ISSUED: August 13, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------------------|----------|-------|----------|---------|
| Derzay; Gregory John | Pewaukee | WI | | |
| Gesior; George Peter | Waukesha | WI | | |
| Hummel, Jr.; Henry John | Waukesha | WI | | |
| Howards Koritzinsky; Ianne Mae | Glendale | WI | | |
| Kucek; Leo Michael | Waukesha | WI | | |
| Mehring; David Thomas | Sussex | WI | | |
| Palliyal; Sunil Melepatt | Kerala | | | IN |
| Swierczek; David Alan | Sussex | WI | | |

US-CL-CURRENT: 707/104.1; 707/10

ABSTRACT:

A technique is disclosed for providing remote service to medical diagnostic systems via a centralized service facility. The service facility is configured to receive service requests from diagnostic systems of different modalities, type, location, and so forth. The service requests are handled by one or more servers, and are directed to work stations or technicians for addressing the service requests. The work stations or technicians are selected in accordance with the modality of the diagnostic system as identified by the service request. A subscription status check may be performed for verifying the service arrangements between the requesting diagnostic systems and the centralized service facility. Reply messages are transmitted from the service facility to the requesting diagnostic systems in response to the service requests, providing interactive service exchange between the facility and the diagnostic systems.

59 Claims, 18 Drawing figures

Exemplary Claim Number: 50

Number of Drawing Sheets: 17

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)
[KIMC](#) | [Draw Desc](#) | [Image](#)
 17. Document ID: US 6415262 B1

L3: Entry 17 of 49

File: USPT

Jul 2, 2002

US-PAT-NO: 6415262

DOCUMENT-IDENTIFIER: US 6415262 B1

TITLE: Method and apparatus for determining a subscription to a product in a retail environment

DATE-ISSUED: July 2, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------------|------------|-------|----------|---------|
| Walker; Jay S. | Ridgefield | CT | | |
| Van Luchene; Andrew S. | Norwalk | CT | | |
| O'Shea; Deirdre | New York | NY | | |
| Mik; Magdalena | Greenwich | CT | | |

US-CL-CURRENT: 705/14; 705/26

ABSTRACT:

A method and apparatus for managing a subscription to a product in a retail environment, wherein the product for which a subscription is offered is selected based on the customer's historical purchases. The subscription defines a price for the selected product, wherein the subscription price is lower than the retail price of the product. The subscription specifies conditions which the customer has to meet in order to remain entitled to receive the subscription price for purchases of the product. Such conditions typically include a required frequency of purchases for a required period of time. The conditions of the subscription are selected so as to maximize the customer's visits to the business offering the subscription without unnecessarily eroding the profits of the business.

63 Claims, 20 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 19

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KWDIC](#) | [Draw Desc](#) | [Image](#)

18. Document ID: US 6393015 B1

L3: Entry 18 of 49

File: USPT

May 21, 2002

US-PAT-NO: 6393015

DOCUMENT-IDENTIFIER: US 6393015 B1

TITLE: Method and apparatus for automatic network connection between a small business and a client

DATE-ISSUED: May 21, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------|---------|-------|----------|---------|
| Shtivelman; Yuri | Belmont | CA | | |

US-CL-CURRENT: 370/352; 370/395.2

ABSTRACT:

An Internet system for providing call-back services for a subscriber includes a web page having a call-back link to a subscription server; a call-back application operating on the subscription server and adapted for accepting input from a browsing person linked to the subscription server by the call-back link; and a call-switching system connected to and responsive to the call-back application on the subscription server. In this system the browsing person, upon activating the call-back link, is linked to the call back application on the subscription server and prompted for input including a call-back number, and the subscription server, after accepting the input, directs the call-switching system in establishing a telephony link between the subscriber and the browsing person. In some instances the telephony switch is part of a call-center with connected agents, and agents are assigned to represent selected subscribers. In this instance call-back connection is made between a browsing person and an agent. In some embodiments connections can be made either by conventional telephony links or by Internet telephone. In some instances as well

provision is made for delivery of a full range of multi-media services from a subscriber to a browsing person.

11 Claims, 3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)

[KINIC](#) [Draw Desc](#) [Image](#)

19. Document ID: US 6353390 B1

L3: Entry 19 of 49

File: USPT

Mar 5, 2002

US-PAT-NO: 6353390

DOCUMENT-IDENTIFIER: US 6353390 B1

TITLE: Method and system of configuring a boundary and tracking an object thereby

DATE-ISSUED: March 5, 2002

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|----------|-------|----------|---------|
| Beri; Jeffrey | Westport | CT | 06880 | |
| Werner; Raymond J. | Portland | OR | 97229 | |

US-CL-CURRENT: 340/572.1; 340/572.4, 340/573.1, 340/825.49

ABSTRACT:

A location monitoring system for tracking an object relative to a virtual boundary via telecommunication infrastructure for use in an electronic-commerce environment. In one embodiment the system includes a wireless communications network and the telecommunications infrastructure to dynamically configure the virtual boundary, by controlled, subscription-based access to the location monitoring system.

38 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)

[KINIC](#) [Draw Desc](#) [Image](#)

20. Document ID: US 6334178 B1

L3: Entry 20 of 49

File: USPT

Dec 25, 2001

US-PAT-NO: 6334178

DOCUMENT-IDENTIFIER: US 6334178 B1

** See image for Certificate of Correction **

TITLE: Multiprocessing system with automated propagation of changes to centrally maintained configuration settings

DATE-ISSUED: December 25, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------------|--------|-------|----------|---------|
| Cannon; David Maxwell | Tucson | AZ | | |
| Crockett; David Romney | Tucson | AZ | | |
| Kaczmarski; Michael Allen | Tucson | AZ | | |

US-CL-CURRENT: 712/28; 707/201

ABSTRACT:

In a multiprocessing system, hierarchically superior configuration managers maintain profiles of operating characteristics to which subordinate managed units selectively subscribe. If the profiles or operating characteristics change, the configuration managers propagate the changes to all managed units. Each configuration manager stores a record of operating characteristics and multiple server profiles, each profile specifying one or more operating characteristics. A subscription list identifies one or more managed units, each associated with one or more server profiles. Each managed unit acts according to its current operating characteristics, stored locally at the managed unit. If the managed unit receives a profile subscription request from a system administrator, the managed unit sends a subscription message to the configuration manager to subscribe to that input profile. Receiving the subscription, the configuration manager enters the subscribing managed unit and the associated profile into the subscription list, and returns the profiled operating characteristics to the subscribing managed unit. The subscribing managed unit stores these operating characteristics in its record of current operating characteristics. If there is a change to the operating characteristics (or to the profiles), the configuration manager transmits the changed matter to all managed units with affected subscriptions. Upon receipt of this data, each subscribing managed units stores the changed operating characteristics in its record of current operating characteristics.

38 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

[Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments]

[KWMC | Drawn Desc | Image]

21. Document ID: US 6324587 B1

L3: Entry 21 of 49

File: USPT

Nov 27, 2001

US-PAT-NO: 6324587

DOCUMENT-IDENTIFIER: US 6324587 B1

** See image for Certificate of Correction **

TITLE: Method, computer program product, and data structure for publishing a data object over a store and forward transport

DATE-ISSUED: November 27, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|----------------------------------|---------|-------|----------|---------|
| Trenbeath; Brian | Redmond | WA | | |
| Krishnan; Vilayanur Parameswaran | Tucson | AZ | | |
| Bliss; William J. | Medina | WA | | |
| Sutjahjo; Siunie Aquawati | Tucson | AZ | | |
| Braun; Kevin J. | Tucson | AZ | | |
| Dozier; David R. | Plano | TX | | |
| Huber; Eric N. | Tucson | AZ | | |

US-CL-CURRENT: 709/310; 709/206, 709/315

ABSTRACT:

A method and computer program product instituting an entirely client-based system for sharing messages and other data objects is provided. Communication between clients occurs over a generic store and forward transport such as the Internet message protocol described in RFC 822 and implemented on the Internet or other wide area network. A message or other data object is originally maintained by a "publication" client that publishes the data object and any modifications thereto to one or more "subscription" clients that will each maintain a copy thereof. As modifications are made by a client (either publication or subscription) to the client copy of the data object, the modified data object is sent, using the store and forward transport, to the publication client to update the data object. Once the data object is updated by the publication client, copies of the modified data object are sent using the store and forward transport to each subscription client so that the subscription client may update the subscription copy. One embodiment of the present invention designates a messaging folder containing one or more data objects as a publication folder (managed by a publication client) that is replicated out to subscription clients over the store and forward transport. The subscription clients each have a corresponding subscription folder wherein the subscription client copies of the data objects are maintained. Any modifications to the data objects are passed to the publication client for verification, replacement in the publication folder, and distribution out to each subscription client for replacement in the corresponding subscription folder. The addition of new data objects or the deletion of existing data objects are handled in like manner through the publication client.

30 Claims, 30 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 24

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KWD](#) | [Draw Desc](#) | [Image](#)

22. Document ID: US 6272536 B1

L3: Entry 22 of 49

File: USPT

Aug 7, 2001

US-PAT-NO: 6272536

DOCUMENT-IDENTIFIER: US 6272536 B1

TITLE: System and method for the distribution of code and data

DATE-ISSUED: August 7, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|---------------|-------|----------|---------|
| van Hoff; Arthur A | Mountain View | CA | | |
| Payne; Jonathan | Sunnyvale | CA | | |
| Shaio; Sami | Palo Alto | CA | | |

US-CL-CURRENT: 709/217; 707/201

ABSTRACT:

A system and method for distributing software applications and data to many thousands of clients over a network. The applications are called "channels", the server is called the "transmitter", and the client is called the "tuner". The use of channels is based on subscription. The end-user needs to subscribe to channel before it can be executed. When the end-user subscribes to a channel the associated code and data is downloaded to the local hard-disk, and once downloaded the channel can be executed many times without requiring further network access. Channels can be updated automatically at regular intervals by the tuner, and as a result the end-user is no longer required to manually install software updates, instead these software and data updates are automatically downloaded and installed in the

background. This method of automatic downloading of updates achieves for the client the same result as the broadcast distribution of software over a connection based network, but wherein the client initiates each update request without requiring any special broadcast networking infra structure.

20 Claims, 13 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 13

[Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments]

[KWMC | Drawn Desc | Image]

23. Document ID: US 6272469 B1

L3: Entry 23 of 49

File: USPT

Aug 7, 2001

US-PAT-NO: 6272469

DOCUMENT-IDENTIFIER: US 6272469 B1

TITLE: Imaging system protocol handling method and apparatus

DATE-ISSUED: August 7, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------------------|----------|-------|----------|---------|
| Koritzinsky; Ianne Mae Howards | Glendale | WI | | |
| Reich; John Aurthur | Waukesha | WI | | |

US-CL-CURRENT: 705/2; 128/920, 128/922, 128/923, 600/300

ABSTRACT:

A technique is disclosed for providing programs, such as operational protocols, to medical diagnostic institutions and systems. The protocols are created and stored on machine readable media. A description of the protocols is displayed at the diagnostic institution or system. A user may select a desired protocol or program from a user interface, such as a listing of protocols. The protocol listing may include textual and exemplary image descriptions of the protocols. Selected protocols are transferred from the machine readable media to the diagnostic institution or system. The transfer may take place over a network link, and may be subject to fee arrangements, subscription status verifications, and so forth. Protocols may be loaded for execution on system scanners by selection from the same or a similar protocol listing screen.

19 Claims, 18 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 17

[Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments]

[KWMC | Drawn Desc | Image]

24. Document ID: US 6269394 B1

L3: Entry 24 of 49

File: USPT

Jul 31, 2001

US-PAT-NO: 6269394

DOCUMENT-IDENTIFIER: US 6269394 B1

TITLE: System and method for delivery of video data over a computer network

DATE-ISSUED: July 31, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------|-----------|-------|----------|---------|
| Kenner; Brian | Encinitas | CA | 82024 | |
| Gruber; Harry | San Diego | CA | 92067 | |

US-CL-CURRENT: 709/217

ABSTRACT:

A video clip storage and retrieval system whereby video clips, stored locally and/or at a more remote location, can be requested and retrieved by a user at the user's multimedia terminal. When the user requests a desired video clip, the request is processed by a primary index manager ("PIM") via a Local Search and Retrieval Unit ("SRU"). Before the message is communicated to the PIM, the local SRU checks its own storage to see whether the requested video clips are available locally. If some of the video clips are local, the local SRU still forwards the request to the PIM so that the PIM may determine specific video clip usage. The PIM determines the extended SRU where the audio-visual data is stored and passes this information to a Data Sequencing Interface ("DSI"). The DSI collects the video clips and downloads the clips to the user's terminal. The user may then view, copy, or print the video clip as desired. In a preferred embodiment, a distributed digital video clip delivery system, according to the invention, provides video clips stored at local and/or remote locations, which can be requested from the Internet and retrieved at the user's multimedia terminal. When the user requests a desired video clip shown on a Web page, the request is diverted to a primary index manager ("PIM"). The PIM attempts to locate the closest server containing the requested clip, from which the download is completed. The system further includes means for uploading and distributing clips to geographically diverse servers, dynamic load balancing, subscription management mechanisms, and protection means to discourage unauthorized duplication of video clips.

5 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 4

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)
[KINIC](#) | [Drawn Desc](#) | [Image](#)
 25. Document ID: US 6266774 B1

L3: Entry 25 of 49

File: USPT

Jul 24, 2001

US-PAT-NO: 6266774

DOCUMENT-IDENTIFIER: US 6266774 B1

TITLE: Method and system for securing, managing or optimizing a personal computer

DATE-ISSUED: July 24, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-------------------------------|-------------|-------|----------|---------|
| Sampath; Srivats | San Jose | CA | | |
| Balasubramaniam; Chandrasekar | Sunnyvale | CA | | |
| Lingarkar; Ravi | Sunnyvale | CA | | |
| Katchapalayam; Babu | Santa Clara | CA | | |
| Kannan; Ravi | Los Angeles | CA | | |

US-CL-CURRENT: 713/201; 709/219

ABSTRACT:

A system, method, and computer program product for delivery and automatic execution of security, management, or optimization software over an Internet connection to a user computer responsive to a user request entered via a web browser on the user computer. In a preferred embodiment, the user directs the Internet browser to a Internet clinical services provider web site computer and logs in to the site using an identifier and a secure password and optionally makes a selection of the type of servicing desired, wherein an automatically-executing software package encapsulated within a markup language communication unit deliverable across the Internet is delivered, to the user computer, the automatically-executing software package being adapted to perform security, management, or optimization functions on the user computer. User identifiers and passwords enabling the downloads may be provided on a per-download basis or on a subscription basis.

14 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KINIC](#) | [Drawn Desc](#) | [Image](#)

26. Document ID: US 6243451 B1

L3: Entry 26 of 49

File: USPT

Jun 5, 2001

US-PAT-NO: 6243451

DOCUMENT-IDENTIFIER: US 6243451 B1

TITLE: Service management access point

DATE-ISSUED: June 5, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-------------------|------------|-------|----------|---------|
| Shah; Tasvir | Irving | TX | | |
| Harrison; Mark A. | Fort Worth | TX | | |
| Bilbo; Matthew J. | Bedford | TX | | |

US-CL-CURRENT: 379/201.03; 370/352, 379/230

ABSTRACT:

A flexible service management system creates, provisions, customizes, and restricts service offerings available on an intelligent network. A service creation environment has a schema query, service screen builder, and logic analyzer that cooperate to create a service screen definition. The service screen definition supports graphical user interfaces that interface with a telephony database. The service screen definition is deployed to a service management system within a service definition package, the service management system interfacing with a telephony database storing telephony data for supporting a service. The service screen definition enables a screen interpreter that can reside on a service management access point to communicate and transact data with the telephony database. The screen interpreter interprets the service screen definition to allow and control access to telephony data and to direct provisioning of services to network elements, such as a service control point, that perform service functions according to customized subscription data in the telephony database. The graphical user interface can communicate through the world wide web to allow customer or other data entry operator access to data on a filtered or restricted basis.

35 Claims, 15 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

[Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments]

[KWC | Draw Desc | Image]

27. Document ID: US 6240451 B1

L3: Entry 27 of 49

File: USPT

May 29, 2001

US-PAT-NO: 6240451

DOCUMENT-IDENTIFIER: US 6240451 B1

** See image for Certificate of Correction **

TITLE: Method and apparatus for automatically disseminating information over a network

DATE-ISSUED: May 29, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------------|---------|-------|----------|---------|
| Campbell; R. David L. | Seattle | WA | | |
| Faragher-Horwell; Roland | Seattle | WA | | |

US-CL-CURRENT: 709/224; 709/248

ABSTRACT:

An information distribution program (36) is provided for automatically distributing information over a network (24) connecting a plurality of computers (15). Each computer (15) is installed with the information distribution program (36), which comprises a family construction module (44), a publication module (40), a subscription module (42), and an information tree (46). The information tree (46) stores the most recent information available to the computer (15). The family construction module (44) organizes the various computers (15) connected to the network (24) into immediate and extended families of related computers (15). The publication module (40) automatically distributes, "publishes" or "pushes" the information to the immediate and extended family members of a computer (15) which have shown an interest in the information. The subscription module (42) provides a computer (15) with the ability to show interest in or "subscribe" to information located on the computers (15) connected to the network (24).

35 Claims, 20 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 20

[Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments]

[KWC | Draw Desc | Image]

28. Document ID: US 6212278 B1

L3: Entry 28 of 49

File: USPT

Apr 3, 2001

US-PAT-NO: 6212278

DOCUMENT-IDENTIFIER: US 6212278 B1

** See image for Certificate of Correction **

TITLE: Reprogrammable subscriber terminal

DATE-ISSUED: April 3, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|---------------|-------|----------|---------|
| Bacon; Kinney C. | Lawrenceville | GA | | |
| Haman; R. Thomas | Duluth | GA | | |
| Lett; David B. | Duluth | GA | | |
| Banker; Robert O. | Cumming | GA | | |
| Harney; Michael P. | Atlanta | GA | | |

US-CL-CURRENT: 380/240; 455/186.1

ABSTRACT:

A reprogrammable subscriber terminal of a subscription television service which can have the control program code of its control processor modified by downloading new program code from the headend. The control processor stores a boot program in an internal read only memory. Upon start up and resets, the boot program determines whether the control program should be changed from a command sent from the headend. The command, termed a parameters transactions, includes the number of expected download program code transactions required to complete the control code modification, the memory space areas where the code is to be loaded, and the channel over which the download program code transactions are to be transmitted. The channel is tuned and when the boot program receives all the download program code transactions accurately and stores them, the boot program will cause the control program to be restarted at a selected address of the new or modified control program code which has been downloaded. The boot program may download code to different configurations of subscriber terminals including those with Flash EPROM or extended memories from plug-in expansion modules.

49 Claims, 23 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 14

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [KIMC](#) | [Draw Desc](#) | [Image](#)

29. Document ID: US 6169793 B1

L3: Entry 29 of 49

File: USPT

Jan 2, 2001

US-PAT-NO: 6169793

DOCUMENT-IDENTIFIER: US 6169793 B1

TITLE: Systems and methods for providing order and service mediation for telecommunications systems

DATE-ISSUED: January 2, 2001

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------|----------------|-------|----------|---------|
| Godwin; Bret A. | Lakewood | CO | | |
| Taylor; David P. | Littleton | CO | | |
| Melonis; Michael G. | Highland Ranch | CO | | |
| Mendes; David W. | Littleton | CO | | |

US-CL-CURRENT: 379/221.13; 379/221.09, 379/230

ABSTRACT:

The invention provides systems and methods for facilitating local number portability. In one exemplary embodiment, a local number portability system is provided which is arranged in a telecommunications management network framework. The system is adapted for use with administration center having an administration database for storing and updating subscription data. The system comprises an entry

system having an entry database for storing subscription data. The entry system is positioned within a service management layer and is adapted to be placed in communication with the administration center. A service system is also provided which is adapted to be placed in communication with the administration center and which includes a service database for storing subscription information. The service system is located in a network management layer.

44 Claims, 5 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KMC](#) | [Draw Desc](#) | [Image](#)

30. Document ID: US 6160993 A

L3: Entry 30 of 49

File: USPT

Dec 12, 2000

US-PAT-NO: 6160993

DOCUMENT-IDENTIFIER: US 6160993 A

TITLE: Method and apparatus for command and control of remote systems using low earth orbit satellite communications

DATE-ISSUED: December 12, 2000

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|---------------|-------|----------|---------|
| Wilson; John Bryan | Lawrenceville | GA | | |

US-CL-CURRENT: 455/12.1; 455/420, 455/427

ABSTRACT:

A method and apparatus for providing command and control of remote systems using low earth orbit satellite communications is disclosed. According to the present invention, a programmable transceiver apparatus provides a two-way communications path between a remote user and a control center via a low earth orbit satellite at frequencies below 1 GHz. The transceiver apparatus includes a transceiver for communicating with the low earth orbit satellite; an antenna coupled to the transceiver; at least one interface communicating signals between at least one external device located at the remote user, wherein the transceiver apparatus is programmed to transmit data related to the external device to the satellite in response to a signal communicated to the transceiver via the low earth orbit satellite, an internal program of the transceiver or an alarm or exception signal generated by any of the external devices or the user. According to another embodiment of the present invention, the command signals from the control center are embedded in an information signal of a direct-to-home subscription information system signal via a geostationary satellite operating at frequencies greater than 1 GHz, and are separated at the user location and communicated to the programmable transceiver. The transceiver, in turn, selectively communicates the command signal to the devices and receives data from the devices. The received data is then transmitted to the control center via a low earth orbit satellite.

17 Claims, 14 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 12

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KMC](#) | [Draw Desc](#) | [Image](#)

31. Document ID: US 6122362 A

L3: Entry 31 of 49

File: USPT

Sep 19, 2000

US-PAT-NO: 6122362

DOCUMENT-IDENTIFIER: US 6122362 A

TITLE: Systems and method for providing network element management functionality for managing and provisioning network elements associated with number portability

DATE-ISSUED: September 19, 2000

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------------|-----------------|-------|----------|---------|
| Smith; John G. | Golden | CO | | |
| Godwin; Bret A. | Lakewood | CO | | |
| Taylor; David P. | Littleton | CO | | |
| Langion; Martha S. | Littleton | CO | | |
| McGlynn; Joe | Highlands Ranch | CO | | |
| Wilson-Hooker; Deborah | Lakewood | CO | | |
| Drummond; Tim | Lakewood | CO | | |
| Sessions; Hardges | Aurora | CO | | |

US-CL-CURRENT: 379/230; 358/450, 379/221.13, 715/517

ABSTRACT:

The invention provides exemplary systems and methods for provisioning network elements when providing local number portability services. In one exemplary method, local number portability subscription information which includes both ported global title translation data and location routing number data is entered into a single network element management system. Selective network elements which are in communication with the network element management system are then provisioned with the ported global translation data and the local routing number data based on logical network definitions stored in the network element management system.

25 Claims, 3 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) |

[KMC](#) | [Draw Desc](#) | [Image](#) |
 32. Document ID: US 6112225 A

L3: Entry 32 of 49

File: USPT

Aug 29, 2000

US-PAT-NO: 6112225

DOCUMENT-IDENTIFIER: US 6112225 A

TITLE: Task distribution processing system and the method for subscribing computers to perform computing tasks during idle time

DATE-ISSUED: August 29, 2000

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-----------------|---------------|-------|----------|---------|
| Kraft; Reiner | Gilroy | CA | | |
| Lu; Qi | San Jose | CA | | |
| Wisebond; Marat | San Francisco | CA | | |

US-CL-CURRENT: 709/202; 709/201, 709/205, 709/217, 709/224, 709/227, 712/28

ABSTRACT:

A computer executable "aggregate" task is processed by dividing it into subtasks and distributing the subtasks "on demand" to remotely located subscribing computers via a computer network. The aggregate task originates at a coordinating computer, coupled to one or more peripheral computers by appropriate communications links. The coordinating computer divides the aggregate task into multiple independent subtasks. Each peripheral computer begins to "subscribe" to the coordinating computer's aggregate task by obtaining an "idle time activation program" from the coordinating computer, and then installing the program locally. The idle time activation program which may include a screen saver, activates automatically when the subscribing computer is inactive. Continuing the subscription process, each peripheral computer requests a subtask from the coordinating computer. In response, the coordinating computer distributes different subtasks among the subscribing computers, completing the subscription process. The subscribing computers automatically work on their respective subtasks whenever they are idle, as directed by the local idle time activation program. When a subscribing computer completes its subtask, it transmits results back to the coordinating computer. When results of all subtasks have been received from subscribing computers, the coordinating computer compiles and stores these results, concluding the aggregate task.

42 Claims, 7 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KMC](#) | [Draw Desc](#) | [Image](#)

33. Document ID: US 6041325 A

L3: Entry 33 of 49

File: USPT

Mar 21, 2000

US-PAT-NO: 6041325

DOCUMENT-IDENTIFIER: US 6041325 A

TITLE: System and method for controlling access to a telephony database

DATE-ISSUED: March 21, 2000

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-------------------|------------|-------|----------|---------|
| Shah; Tasvir | Irving | TX | | |
| Harrison; Mark A. | Fort Worth | TX | | |
| Bilbo; Matthew | Bedford | TX | | |

US-CL-CURRENT: 707/10; 345/744, 707/102

ABSTRACT:

A flexible service management system creates, provisions, customizes, and restricts service offerings available on an intelligent network. A service creation environment has a schema query, service screen builder, and logic analyzer that cooperate to create a service screen definition. The service screen definition supports graphical user interfaces that interface with a telephony database. The service screen definition is deployed to a service management system within a service definition package, the service management system interfacing with a telephony database storing telephony data for supporting a service. The service screen definition enables a screen interpreter that can reside on a service management access point to communicate and transact data with the telephony database. The screen interpreter interprets the service screen definition to allow

and control access to telephony data and to direct provisioning of services to network elements, such as a service control point, that perform service functions according to customized subscription data in the telephony database. The graphical user interface can communicate through the world wide web to allow customer or other data entry operator access to data on a filtered or restricted basis.

33 Claims, 15 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)

[KWC](#) [Draw Desc](#) [Image](#)

34. Document ID: US 6018767 A

L3: Entry 34 of 49

File: USPT

Jan 25, 2000

US-PAT-NO: 6018767

DOCUMENT-IDENTIFIER: US 6018767 A

TITLE: Method and system for managing subscription services with a cable modem

DATE-ISSUED: January 25, 2000

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------|-------------|-------|----------|---------|
| Fijolek; John G. | Naperville | IL | | |
| Lee; Ronald B. | Northbrook | IL | | |
| Robinson; Philip T. | Barrington | IL | | |
| Gun; Levent | Lake Forest | IL | | |

US-CL-CURRENT: 709/218; 709/225, 709/250, 725/111, 725/122

ABSTRACT:

A method and system for managing network services such as subscription services from a cable modem in a data-over-cable system. The cable modem receives an initialization message on a cable television connection indicating what services are available on a data network. The cable modem uses a connection to a public switched telephone network in the data-over-cable system to send requests to and receive responses from the data network. A telephony remote access concentrator on the public switched telephone network provides an additional security mechanism by not allowing a cable modem to subscribe to unauthorized services. Using the public switched telephone network does not compromise the security of the cable television network. In addition, the public switched telephone network is used to provide administrative support to the cable television network on lower bandwidth connections by providing an administrative pathway outside of the higher bandwidth cable television connections.

24 Claims, 29 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 28

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [Sequences](#) [Attachments](#)

[KWC](#) [Draw Desc](#) [Image](#)

35. Document ID: US 5995092 A

L3: Entry 35 of 49

File: USPT

Nov 30, 1999

US-PAT-NO: 5995092

DOCUMENT-IDENTIFIER: US 5995092 A

TITLE: Television system and method for subscription of information services

DATE-ISSUED: November 30, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-------------------|----------------------|-------|----------|---------|
| Yuen; Henry C. | Redondo Beach | CA | 90278 | |
| Mankovitz; Roy J. | Encino | CA | 91316 | |
| Kwoh; Daniel S. | La Canada/Flintridge | CA | 91011 | |
| Leung; Elsie Y. | South Pasadena | CA | 91030 | |

US-CL-CURRENT: 725/40; 345/716, 725/32, 725/37, 725/39

ABSTRACT:

A system for sending selected up-to-date information in a television signal from a sender located at a network head-end or television station to a receiver co-located with a television viewer. The television viewer subscribes to an information service by telephoning a customer service center affiliated with the sender. The customer service center informs the sender of the subscription and the sender sends data packets of information individually targeted for the television viewer in the vertical blanking interval of the television signal. The television viewer's receiver accepts the data packets identified for it and on viewer command displays information included therein on the television screen. The data packets may include information relating to news, sports results, financial market updates, television programming guides, and the like. Information is displayed to the viewer in a menu format, allowing for ease of use in controlling presentation of various types of information.

35 Claims, 17 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 13

| | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|

| | | |
|------|------------|-------|
| KIMC | Draw. Desc | Image |
|------|------------|-------|

 36. Document ID: US 5956716 A

L3: Entry 36 of 49

File: USPT

Sep 21, 1999

US-PAT-NO: 5956716

DOCUMENT-IDENTIFIER: US 5956716 A

TITLE: System and method for delivery of video data over a computer network

DATE-ISSUED: September 21, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------|-----------|-------|----------|---------|
| Kenner; Brian | Encinitas | CA | | |
| Gruber; Harry | San Diego | CA | | |

US-CL-CURRENT: 707/10; 707/104.1, 709/217, 725/143

ABSTRACT:

A video clip storage and retrieval system whereby video clips, stored locally and/or at a more remote location, can be requested and retrieved by a user at the user's multimedia terminal. When the user requests a desired video clip, the request is

processed by a primary index manager ("PIM") via a Local Search and Retrieval Unit ("SRU"). Before the message is communicated to the PIM, the local SRU checks its own storage to see whether the requested video clips are available locally. If some of the video clips are local, the local SRU still forwards the request to the PIM so that the PIM may determine specific video clip usage. The PIM determines the extended SRU where the audio-visual data is stored and passes this information to a Data Sequencing Interface ("DSI"). The DSI collects the video clips and downloads the clips to the user's terminal. The user may then view, copy, or print the video clip as desired. In a preferred embodiment, a distributed digital video clip delivery system, according to the invention, provides video clips stored at local and/or remote locations, which can be requested from the Internet and retrieved at the user's multimedia terminal. When the user requests a desired video clip shown on a Web page, the request is diverted to a primary index manager ("PIM"). The PIM attempts to locate the closest server containing the requested clip, from which the download is completed. The system further includes means for uploading and distributing clips to geographically diverse servers, dynamic load balancing, subscription management mechanisms, and protection means to discourage unauthorized duplication of video clips.

59 Claims, 4 Drawing figures
 Exemplary Claim Number: 1
 Number of Drawing Sheets: 4

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [KIMIC](#) | [Drawn Desc](#) | [Image](#)

37. Document ID: US 5919247 A

L3: Entry 37 of 49

File: USPT

Jul 6, 1999

US-PAT-NO: 5919247

DOCUMENT-IDENTIFIER: US 5919247 A

TITLE: Method for the distribution of code and data updates

DATE-ISSUED: July 6, 1999

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------|---------------|-------|----------|---------|
| Van Hoff; Arthur | Mountain View | CA | | |
| Payne; Jonathan | Santa Clara | CA | | |
| Shaio; Sami | Menlo Park | CA | | |

US-CL-CURRENT: 709/217; 707/201, 717/173

ABSTRACT:

A system and method for distributing software applications and data to many thousands of clients over a network. The applications are called "channels", the server is called the "transmitter", and the client is called the "tuner". The use of channels is based on subscription. The end-user needs to subscribe to channel before it can be executed. When the end-user subscribes to a channel the associated code and data is downloaded to the local hard-disk, and once downloaded the channel can be executed many times without requiring further network access. Channels can be updated automatically at regular intervals by the tuner, and as a result the end-user is no longer required to manually install software updates, instead these software and data updates are automatically downloaded and installed in the background. This method of automatic downloading of updates achieves for the client the same result as the broadcast distribution of software over a connection based network, but wherein the client initiates each update request without requiring any special broadcast networking infra structure.

61 Claims, 13 Drawing figures
 Exemplary Claim Number: 1

Number of Drawing Sheets: 13

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)[KWC](#) | [Draw Desc](#) | [Image](#) 38. Document ID: US 5708963 A

L3: Entry 38 of 49

File: USPT

Jan 13, 1998

US-PAT-NO: 5708963

DOCUMENT-IDENTIFIER: US 5708963 A

TITLE: Method and apparatus for using satellites for reverse path communication in direct-to-home subscription information systems

DATE-ISSUED: January 13, 1998

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-------------------|----------|-------|----------|---------|
| Mobley, J. Graham | Dunwoody | GA | | |
| Summers, Macy W. | Norcross | GA | | |

US-CL-CURRENT: 455/12.1; 725/65, 725/68

ABSTRACT:

Apparatus for using a low earth orbit satellite for reverse path communication in a subscription information service delivery system comprises a receiver adapted to receive a subscription information service signal at frequencies exceeding 1 GHz via a first path. Responsive to a poll, the receiver is adapted to transmit a response signal to the poll at frequencies under 1 GHz via a second path to a low earth orbit satellite. The polling request may be transmitted with the subscription information service signal or through the low earth orbit satellite. Preferably, the polling request is addressed and comprises a response message length field. The response comprises a service provider identifier and a subscriber identifier and further, preferably comprises response data encrypted by a key known to the service provider.

43 Claims, 13 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 10

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)[KWC](#) | [Draw Desc](#) | [Image](#) 39. Document ID: US 5539822 A

L3: Entry 39 of 49

File: USPT

Jul 23, 1996

US-PAT-NO: 5539822

DOCUMENT-IDENTIFIER: US 5539822 A

TITLE: System and method for subscriber interactivity in a television system

DATE-ISSUED: July 23, 1996

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|----------------|--------|-------|----------|---------|
| Lett, David B. | Duluth | GA | | |

US-CL-CURRENT: 380/211; 380/251, 705/63, 705/75, 725/116, 725/118, 725/131, 725/24,
725/60

ABSTRACT:

A system for providing interactive services in a subscription television system comprises a system network controller for controlling the interactive services having controller memory for storing subscriber terminal identification data, transaction identification data and transaction return data, and a processor, coupled to the controller memory, for generating a transaction having interactive transaction data and transaction identification data. The processor also correlates received transaction return data with at least said transaction identification data and calculates summary data therefrom. A first transmitter transmits the transaction to terminal apparatus, and a first receiver receives transaction return data from terminal apparatus. A video signal source transmits a video signal to the terminal apparatus. The terminal apparatus, which is coupled to the first transmitter and the video signal source, receives the video signal and the transaction identification data. The terminal apparatus particularly comprises data input circuitry for receiving transaction return data, terminal memory for storing the transaction return data associated with the transaction identification data, a terminal controller, coupled to the data input circuitry and the memory, and a data return transmitter for returning the associated transaction return data and the transaction identification data to the first receiver of the system network controller. The terminal controller determines completion of entry of transaction return data for a particularly identified transaction and, immediately after data entry completion, initiates return by the data return transmitter.

43 Claims, 20 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 13

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KWDs](#) | [Draw Desc](#) | [Image](#)

40. Document ID: US 5510798 A

L3: Entry 40 of 49

File: USPT

Apr 23, 1996

US-PAT-NO: 5510798

DOCUMENT-IDENTIFIER: US 5510798 A

TITLE: Multiple-accuracy GPS system

DATE-ISSUED: April 23, 1996

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-------------------|--------|-------|----------|---------|
| Bauer; William D. | Gering | NE | 69341 | |

US-CL-CURRENT: 342/357.03

ABSTRACT:

A GPS system for both generating and receiving multiple differential corrections from a single broadcast transmission may involve FM subcarrier modulations at any carrier frequency or subcarrier offset to provide multiple differential correction signals having varying accuracy. Signals may be encrypted and enabled through a controllable address signal to be provided on a subscription basis. Subcarrier transmissions are provided for in overlapping manner for redundancy and with either separate or interleaved differential signals so as to be able to both broadcast differential corrections and informational signals using existing equipment and FM stations at any available offset with both uplink and downlink capabilities. Similarly at least one FM receiver component is included within a traditional GPS receiver to simultaneously receive, scan, locate, and compare differential signals

for more accurate determination of location in a reliable and optimum manner and at differing locations.

28 Claims, 2 Drawing figures
 Exemplary Claim Number: 1
 Number of Drawing Sheets: 2

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|------|-----------|-------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|------|-----------|-------|

41. Document ID: US 5491820 A

L3: Entry 41 of 49

File: USPT

Feb 13, 1996

US-PAT-NO: 5491820

DOCUMENT-IDENTIFIER: US 5491820 A

TITLE: Distributed, intermittently connected, object-oriented database and management system

DATE-ISSUED: February 13, 1996

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------|------------|-------|----------|---------|
| Belove; Edward | Cambridge | MA | | |
| Culbert; James A. | Lynnfield | MA | | |
| Johnson; R. Patrick | Manchester | MA | | |
| Heath; David M. | Nashua | NH | | |
| Kraley; Michael F. | Lexington | MA | | |
| Mendez; Deborah | Malden | MA | | |
| Pant; Sangam | Winchester | MA | | |
| Zagieboyo; Stephen | Norfolk | MA | | |

US-CL-CURRENT: 707/3; 709/203, 709/219, 710/1, 710/74

ABSTRACT:

Disclosed is an object-oriented approach to storage and transmission of retrievable items in a client-server computer environment. Special processing modules manage retrieval and permanent storage, on client computers, of requested objects in a manner that minimizes unnecessary transmission and storage. The user enters a "subscription" in connection with items related to hierarchically inferior items. The subscription specifies the amount of information the user desires to download and store locally with respect to a specified hierarchical depth level. The invention also includes a pruning module for deleting, from local storage, items inconsistent with the subscription and which the user does not explicitly indicate a desire to store, and a facility for updating locally stored items upon re-establishment of communication with the server.

19 Claims, 4 Drawing figures
 Exemplary Claim Number: 1
 Number of Drawing Sheets: 4

| | | | | | | | | | | | | |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|------|-----------|-------|
| Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image |
|------|-------|----------|-------|--------|----------------|------|-----------|-----------|-------------|------|-----------|-------|

42. Document ID: US 5485221 A

L3: Entry 42 of 49

File: USPT

Jan 16, 1996

US-PAT-NO: 5485221
 DOCUMENT-IDENTIFIER: US 5485221 A

TITLE: Subscription television system and terminal for enabling simultaneous display of multiple services

DATE-ISSUED: January 16, 1996

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---------------------|---------------|-------|----------|---------|
| Banker; Robert O. | Cumming | GA | | |
| Hayashi; Michael T. | Aurora | CO | | |
| Bacon; Kinney C. | Lawrenceville | GA | | |

US-CL-CURRENT: 348/563; 348/564, 348/731, 725/114, 725/131, 725/138, 725/139, 725/37

ABSTRACT:

A headend of a subscription television system includes a video combiner that combines video signals from four separate programs into a composite video signal. The video signals are formatted to produce the composite video signal such that one of the programs appears in each quadrant of the displayed picture. Text data streams are then inserted into the vertical blanking interval of the composite video signal. The composite video signal is transmitted in a channel of a broadband television signal to a plurality of subscriber terminals. A plurality of virtual channels are defined by combinations of quadrants of the composite video signal and quadrants of text from the text data streams. When the subscriber selects a virtual channel, the composite video signal is tuned from the broadband signal, and the text data stream forming the text display of the virtual channel is extracted. An on-screen display uses the text data stream and the composite video signal to generate a display whereby text may be displayed in three quadrants and video corresponding to one of the programs may be displayed in the remaining quadrant.

10 Claims, 11 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 8

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#) | [RIMC](#) | [Drawn Desc](#) | [Image](#)

43. Document ID: US 5440632 A

L3: Entry 43 of 49

File: USPT

Aug 8, 1995

US-PAT-NO: 5440632

DOCUMENT-IDENTIFIER: US 5440632 A

TITLE: Reprogrammable subscriber terminal

DATE-ISSUED: August 8, 1995

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|--------------------|---------------|-------|----------|---------|
| Bacon; Kinney C. | Lawrenceville | GA | | |
| Haman; R. Thomas | Duluth | GA | | |
| Lett; David B. | Duluth | GA | | |
| Banker; Robert O. | Cumming | GA | | |
| Harney; Michael P. | Atlanta | GA | | |

US-CL-CURRENT: 380/242; 455/186.1, 709/221, 713/187, 725/1, 725/104, 725/132

ABSTRACT:

A reprogrammable subscriber terminal of a subscription television service which can have the control program code of its control processor modified by downloading new program code from the headend. The control processor stores a boot program in an internal read only memory. Upon start up and resets, the boot program determines whether the control program should be changed from a command sent from the headend. The command, termed a parameters transactions, includes the number of expected download program code transactions required to complete the control code modification, the memory space areas where the code is to be loaded, and the channel over which the download program code transactions are to be transmitted. The channel is tuned and when the boot program receives all the download program code transactions accurately and stores them, the boot program will cause the control program to be restarted at a selected address of the new or modified control program code which has been downloaded. The boot program may download code to different configurations of subscriber terminals including those with Flash EPROM or extended memories from plug-in expansion modules.

62 Claims, 23 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 14

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KIMC](#) | [Drawn Desc](#) | [Image](#)

44. Document ID: US 5406627 A

L3: Entry 44 of 49

File: USPT

Apr 11, 1995

US-PAT-NO: 5406627

DOCUMENT-IDENTIFIER: US 5406627 A

**** See image for Reexamination Certificate ****

TITLE: Digital data cryptographic system

DATE-ISSUED: April 11, 1995

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------------|----------------|-------|----------|---------|
| Thompson; John R. | La Quinta | CA | | |
| Hunting; C. J. | Altadena | CA | | |
| Phipps; William L. | Bermuda Dunes | CA | | |
| Raynesford; Steven J. | Cathedral City | CA | | |
| Rittmueller; Philip H. | St. Charles | IL | | |

US-CL-CURRENT: 380/237; 380/242, 380/44, 380/47

ABSTRACT:

An audiovisual subscription system includes means for aperiodically inverting the lines of a transmitted video signal on a frame-by-frame basis and for decrypting encrypted PCM audio information which is transmitted along with the aperiodically inverted video information.

22 Claims, 49 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 44

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)

[KIMC](#) | [Drawn Desc](#) | [Image](#)

45. Document ID: US 5381477 A

L3: Entry 45 of 49

File: USPT

Jan 10, 1995

US-PAT-NO: 5381477

DOCUMENT-IDENTIFIER: US 5381477 A

TITLE: Method of selecting cable television converter groups

DATE-ISSUED: January 10, 1995

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|-----------------------|------------|-------|----------|---------|
| Beyers, II; Robert J. | Snellville | GA | | |
| Durden; Gregory S. | Jonesboro | GA | | |
| Ivey; M. Kent | Chamblee | GA | | |
| Kuban; Curt M. | Snellville | GA | | |

US-CL-CURRENT: 380/231; 380/240, 725/34, 725/35

ABSTRACT:

A method of selecting individual subscribers for inclusion in groups by means of certain selection criteria comprises the steps of storing criteria related to terminals of a subscription television system, defining criteria which characterizes a group, logically linking the criteria in a predetermined manner to form a group criteria definition statement, comparing the stored terminal criteria with the group criteria definition statement, and assigning an individual or group of terminals to the group when the stored terminal criteria matches the group criteria definition statement. The selection criteria, for example, may include a range of terminal serial numbers, a range of terminal addresses, the status of the terminal, the service codes for the terminal, subscriber terminal features, a code determining the headend to which a terminal is associated, a terminal model number, and the current orders (for example, pay-per-view events subscribed to). The logical operators may include logical AND, logical OR, logical NOT, equal to, greater than, less than, greater than or equal to, parentheticals for joining operators and brackets and separators for service codes.

51 Claims, 30 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 24

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Sequences](#) | [Attachments](#)[KMC](#) | [Draw Desc](#) | [Image](#) 46. Document ID: US 5267312 A

L3: Entry 46 of 49

File: USPT

Nov 30, 1993

US-PAT-NO: 5267312

DOCUMENT-IDENTIFIER: US 5267312 A

TITLE: Audio signal cryptographic system

DATE-ISSUED: November 30, 1993

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------------|----------------|-------|----------|---------|
| Thompson; John R. | La Quinta | CA | | |
| Hunting; C. J. | Altadena | CA | | |
| Phipps; William L. | Bermuda Dunes | CA | | |
| Raynesford; Steven J. | Cathedral City | CA | | |
| Rittmueller; Philip H. | St. Charles | IL | | |

US-CL-CURRENT: 380/237; 380/28

ABSTRACT:

An audiovisual subscription system includes means for aperiodically inverting the lines of a transmitted video signal on a frame-by-frame basis and for decrypting encrypted PCM audio information which is transmitted along with the aperiodically inverted video information.

3 Claims, 48 Drawing figures
 Exemplary Claim Number: 1
 Number of Drawing Sheets: 44

[Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments] [KWMC | Draw Desc | Image]

47. Document ID: US 5185794 A

L3: Entry 47 of 49

File: USPT

Feb 9, 1993

US-PAT-NO: 5185794

DOCUMENT-IDENTIFIER: US 5185794 A

TITLE: System and method for scrambling and/or descrambling a video signal

DATE-ISSUED: February 9, 1993

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------------|----------------|-------|----------|---------|
| Thompson; John R. | La Quinta | CA | | |
| Hunting; C. J. | Altadena | CA | | |
| Phipps; William L. | Bermuda Dunes | CA | | |
| Raynesford; Steven J. | Cathedral City | CA | | |
| Rittmueller; Philip H. | St. Charles | IL | | |

US-CL-CURRENT: 380/235; 380/239

ABSTRACT:

An audiovisual subscription system includes means for aperiodically inverting the lines of a transmitted video signal on a frame-by-frame basis and for decrypting encrypted PCM audio information which is transmitted along with the aperiodically inverted video information.

24 Claims, 49 Drawing figures
 Exemplary Claim Number: 1
 Number of Drawing Sheets: 44

[Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments] [KWMC | Draw Desc | Image]

48. Document ID: US 5166976 A

L3: Entry 48 of 49

File: USPT

Nov 24, 1992

US-PAT-NO: 5166976

DOCUMENT-IDENTIFIER: US 5166976 A

TITLE: System and method for detection of a pulse within a video signal

DATE-ISSUED: November 24, 1992

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------------|----------------|-------|----------|---------|
| Thompson; John R. | La Quinta | CA | | |
| Hunting; C. J. | Altadena | CA | | |
| Phipps; William L. | Bermuda Dunes | CA | | |
| Raynesford; Steven J. | Cathedral City | CA | | |
| Rittmueller; Philip H. | St. Charles | IL | | |

US-CL-CURRENT: 380/225; 327/165, 327/75, 327/78, 327/98, 348/525, 380/222, 380/224,
380/226

ABSTRACT:

An audiovisual subscription system includes means for aperiodically inverting the lines of a transmitted video signal of a frame-by-frame basis and for decrypting encrypted PCM audio information which is transmitted along with the aperiodically inverted video information.

5 Claims, 39 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 44

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File: USPT

Feb 25, 1992

US-PAT-NO: 5091938

DOCUMENT-IDENTIFIER: US 5091938 A

** See image for Reexamination Certificate **

TITLE: System and method for transmitting entertainment information to authorized ones of plural receivers

DATE-ISSUED: February 25, 1992

INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|------------------------|----------------|-------|----------|---------|
| Thompson; John R. | La Quinta | CA | | |
| Hunting; C. J. | Altadena | CA | | |
| Phipps; William L. | Bermuda Dunes | CA | | |
| Raynesford; Steven J. | Cathedral City | CA | | |
| Rittmueller; Philip H. | St. Charles | IL | | |

US-CL-CURRENT: 380/239; 380/242, 380/28, 380/45, 380/47

ABSTRACT:

An audiovisual subscription system includes means for aperiodically inverting the lines of a transmitted video signal on a frame-by-frame basis and for decrypting encrypted PCM audio information which is transmitted along with the aperiodically inverted video information.

11 Claims, 40 Drawing figures

Exemplary Claim Number: 1

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